

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of **MAY 22 1998**  
Jipin Zhong et al.  
Application No.: 08/834,155  
Filed: April 14, 1997  
For: BIOACTIVE SOL-GEL  
COMPOSITIONS AND METHODS

) Group Art Unit: 1502

) Examiner: **RECEIVED**

) JUN 08 1998

) **GROUP 2100**

**RESPONSE PURSUANT TO 37 C.F.R. § 1.111**

Assistant Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

The following remarks are submitted in complete response to the Official Action mailed February 3, 1998. Reconsideration and re-examination pursuant to 37 C.F.R. § 1.111 is respectfully requested.

At the outset, the undersigned would like to thank the Examiner for the Interview conducted on March 24, 1998 and the indication of allowability set forth in the Examiner Interview Summary.

The sole rejection of record is under 35 U.S.C. § 103(a) over Hench et al., U.S. Patent No. 5,222,092 ("Hench et al"). The rejection is respectfully traversed for all of the reasons that follow.

Prior to addressing the rejection of record, a brief description of the background of the invention is provided for the convenience of the Examiner. The formation of bioactive glass monoliths having pore sizes sufficient to provide for bioactivity and resorbability has been problematic due to the tendency for such monoliths to crack during formation or drying. These problems have been ameliorated by the present invention. The present invention is directed to, for example, a process for making bioactive glasses including preparing a reaction sol capable of forming a sol-gel, aging the reaction mixture, near equilibrium drying a gel resulting from the reaction mixture, and heating the near equilibrium